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ABSTRACT

Numerous reviews and studies have documented high levels of substance use and abuse in the United States when compared to other developed nations. Previous research has identified several factors which place adolescents at risk for substance abuse. This study was designed to replicate and validate some of these risk factors with youth from rural communities. Participants (N=5,435) were students in grades 7-12 from 31 schools in north central Idaho. Information was collected through use of a questionnaire which assessed demographic information, attitudes towards drugs and their usage, perception of community use levels, basic knowledge about drugs, and nine other selected risk factors. These risk factors included alcohol use at an early age, low educational achievement, low religious commitment, perceived levels of adult and peer drug use, perceived parental and peer approval of drug use, limited educational plans, and reported school attendance. The nine risk factors were found to be significantly related to drug use for the adolescents. Parental failure to communicate strong disapproval of drug usage had the strongest relationship with reported levels of drug usage, closely followed by peer approval as a predictor. As the number of risk factors adolescents possesses increased, they were more likely to report drug use. One potential way for communities to deal with adolescent drug abuse is to reduce the number of risk factors present in their youth. (ABL)

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Risk Factors For Substance Abuse For Rural Adolescents

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Numerous reviews and studies have documented high levels of substance use and abuse in the United States when compared to other developed nations (e.g. Bachman, O'Malley & Johnston, 1984; Borton & Johnson, 1987; Newcomb & Bentler,1989). These high levels of illicit and licit drug usage by Americans has been a national issue of concern over the last several years. While evidence is growing that the drug use and abuse levels for American adolescents is decreasing, levels and patterns of drug use among adolescents may be more compulsive and more damaging (Schuster, 1989).

The understanding of factors which place today's adolescent at risk for substance abuse is timely and important. Previous research has identified several reliable risk factors (e.g. Bry, McKeon, & Pandina, 1982; Kandel, 1985). These have been replicated and validated with cross-sectional and longitudinal survey data with urban youth and youth from Southern California(Maddahian, Newcomb & Bentler, 1988; Newcomb, Maddahian, & Bentler, 1986; Newcomb, Maddahian, Skager & Bentler, 1987). This study was designed to replicate and validate some of these risk factors with youth from rural communities outside of California.

METHOD

Participants

The participants in this study were 5435 adolescents from 31 different schools in a five county region of north central Idaho (Clearwater, Idaho, Latah, Lewis, and Nez Perce) and a three county region of southeastern Washington (Asotin, Garfield, and Whitman). A total of 52.3% were male and 47.7% were female. Most of the respondents were Caucasian (89.5%) with 5% being Native American Indian and less than 6% of the remainder being either Asian, Black, and Hispanic. Seventh graders made up 12.4% of the sample, 8th

graders 21%, 9th graders 14.2%, 10th graders 16.8%, 11th graders 18% and 12th graders 16.8% of the total sample. Except for two larger schools in the study which selected representative courses across all ability levels for the administration of the questionnaire, all students present in the school on the day of the administration were given the questionnaire to complete. Only a handful refused to do so. The number of students absent plus those refusing to complete the questionnaire varied between 2% and 8% of the official enrollment of each school.

Design

This study utilized a large written questionnaire which was anonymously administered to adolescents during school time. The questionnaire were completed in the spring of 1988. The items on the questionnaire assessed a range of demographic information, drug usage levels over the previous six months, attitudes towards drugs and their usage, perception of community use levels, basic knowledge about drugs, and other selected risk factors.

Drug Use levels

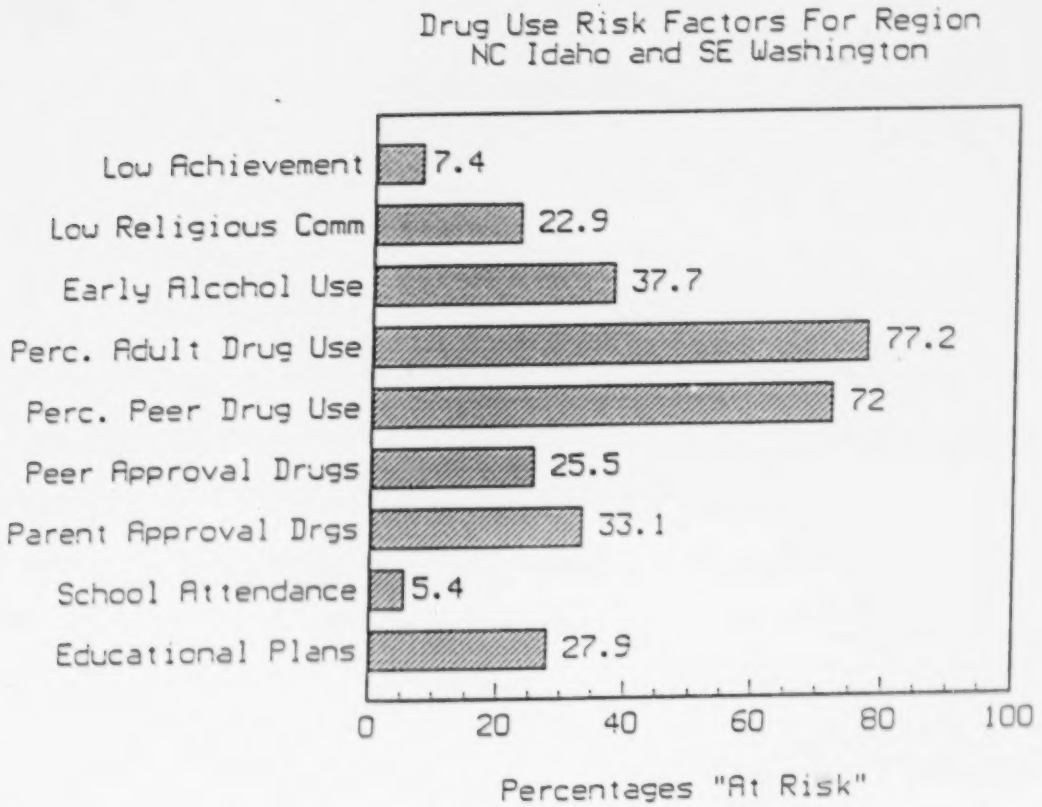
The use levels over the previous six months for a total of ten classifications of substances were assessed on five point scales. The ten drug groupings were tobacco, alcohol, marijuana, cocaine, tranquilizers etc., amphetamines, psychedelics, sniffing stuff, narcotics, and PCP. The adolescents indicated whether over the last 6 months they had used the drugs without doctor's orders. For each drug grouping the respondents completed a scale by circling either never, a few times, once a month, once a week, or once or more a day.

Risk Factors

Nine previously identified risk factors were assessed using the large questionnaire. These risk factors were defined as follows:

Risk Factor	Definition of "At Risk"
Low educational achievement	Grade average of a D or an F
Low religious commitment	Indicates not at all religious
Alcohol use at an early age	Intoxicated on alcohol before 13
Perceived levels of adult drug use	Believes many adults in their community use alcohol, marijuana, cocaine and other drugs
Perceived levels of peer drug use	Believes many students in their school use alcohol, marijuana, cocaine, and other drugs
Perceived parent approval of drug use	Believes parents are <u>not</u> strongly against their use of alcohol and marijuana
Perceived peer approval of drug use	Believes friends would see as OK or join in with another student who "gets loaded" at school or school events
Reported school attendance	Skipped school at least 5 times while not being sick during the school year
Limited educational plans	Plans to quit their education before receiving a college degree

Using these definitions, each adolescent respondent was classified as being "at risk" or "not at risk" for each of these risk factors and assigned a number of 1 or 0, respectively, for analysis purposes. A summary of the percentages of adolescents in this region who possess each risk factor is presented in the graph which follows.

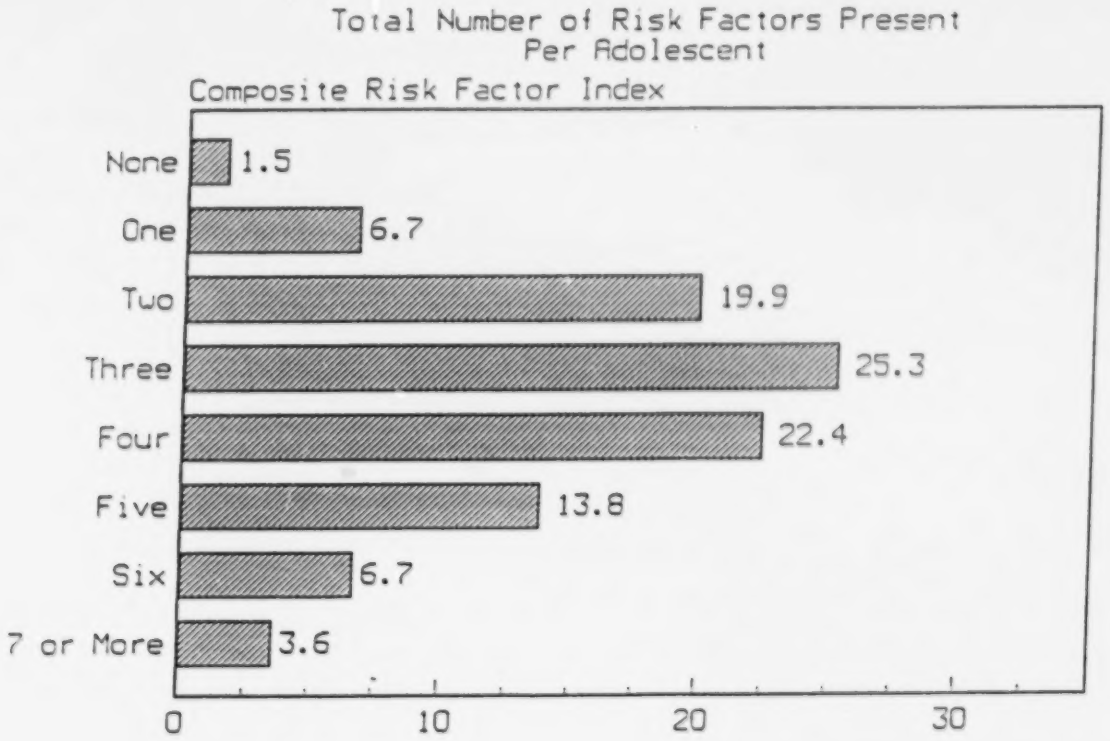


The nine individual risk factors have been shown in previous research to be predictors of drug usage. These predictions are based on significant correlations between individual risk factors and reported levels of drug use. Previous research on drug use patterns also indicates there is not one single reason for drug abuse but there are many reasons that adolescents use alcohol and drugs. This "multiple pathways to drug use" model indicates that as the number of risk factors increase for an adolescent (regardless of which risk factors exist), there is an increased chance that the adolescent will be using drugs. Therefore, to increase prediction levels each of these individual

risk factors were also summed to obtain a composite risk index which ranged from 0 (when no risk factors were present) to 9 (when all risk factors were present).

RESULTS

The percentage of this region's adolescents exhibiting zero through six and seven or more on the composite risk index are presented in the graph which follows.



Each of the risk factors was correlated with these reported levels of drug usage for each of the ten different drugs. The correlations between each risk factor and cigarette usage, alcohol usage, marijuana usage and cocaine usage are presented in the table which follows. Because of the relatively low

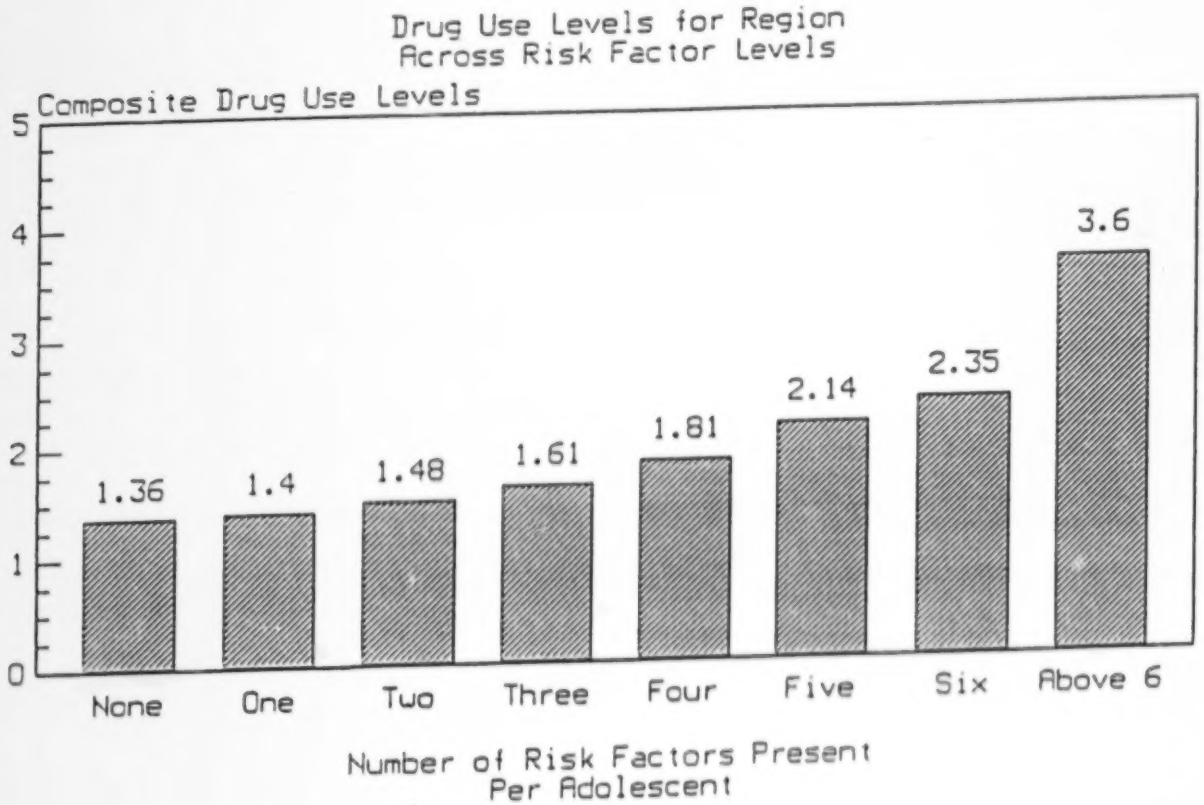
levels of reported usage of the remaining types of drugs, a composite drug use index was also created by averaging the reported use levels for each of the ten drugs included on the survey. Each of the risk factors was then also correlated with the composite drug use index and these correlations are presented in the table which follows.

Correlations Between Risk Factors and Reported Drug Use

Risk Factor	Cigarette Use	Alcohol Use	Marijuana Use	Cocaine Use	Composite Use Index
Ed Achievement	.18	.10	.17	.15	.20
Rel. Comm	.12	.14	.14	.10	.16
Early Alc. Use	.18	.10	.17	.17	.22
Perc. Adult Use	.11	.19	.10	.03 ns	.16
Perc. Peer Use	.14	.25	.16	.07	.22
Parent Approval of Drug Use	.22	.31	.21	.15	.31
Peer Approval of Drug Use	.36	.38	.39	.21	.46
Sch. Attendance	.16	.14	.20	.17	.24
Ed. plans	.21	.15	.14	.08	.20
Composite Risk Factor	.39	.39	.42	.30	.52

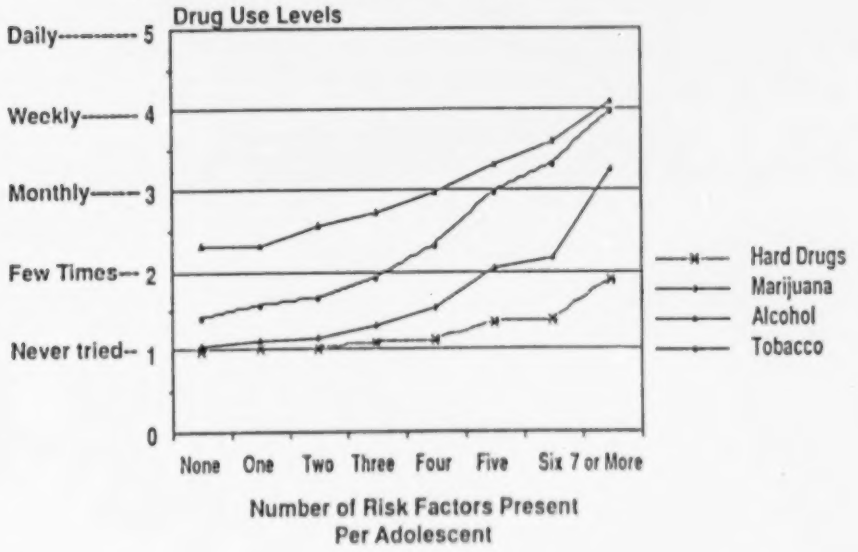
All these correlation coefficients except the one indicated with an ns are significant at the .001 level. Clearly, the presence of each risk factor is associated with higher levels of drug usage. The use of a composite risk index improves these relationships considerably.

As the number of risk factors present in each of this region's adolescents increases the levels drug usage reported clearly increases. This can be seen in the following figure relating the number of risk factors per adolescent to the levels of composite drug usage.



This linear trend is also present for self-reported use levels of tobacco, alcohol, marijuana, and hard drugs for this region's adolescents. The following graph plots these relationships.

Drug Use Levels for Region Across Risk Factor Levels



SUMMARY

The nine risk factors assessed in this study are significantly related to drug use for the adolescents in this region. This replicates findings obtained by Newcomb and his associates (e.g. Newcomb, Maddahian, & Bentler, 1986) with youth from Southern California.

Parental failure to communicate strong disapproval of drug usage has the strongest relationship with reported levels of drug usage. This is closely followed by peer approval as a strong predictor. The levels of adult and peer usage are perceived by the adolescents as being quite high and are also predictive. However, as the number of risk factors an adolescent possesses increases, he or she is more likely to report more drug use. Regardless of which risk factors are exhibited, the more there are, the more likely the adolescent is to report using drugs and to report using them at higher levels.

One potential way to deal with adolescent drug use is for communities to work to reduce the number of risk factors that are present in their youth. Each individual of the community can and should accept responsibility for dealing with adolescent drug usage and become actively involved in reducing the number of risk factors.

The issue of adolescent drug usage is not a "school problem". The risk factors directly relevant to school activities (low educational achievement and school attendance) are the two risk factors which are reported by the lowest percentage of adolescents in the region. This region's adolescents generally perceive teachers as positive role models who do not use drugs. Unfortunately, they also report that they are much more likely to do what their parents and peers want them to do than their teachers. Parents, religious leaders, and community leaders need to impact our youth. The "solution" is not an easy one or a singular one. The solutions for any community will be as numerous and as varied as the reasons why their adolescents use and abuse drugs. These solutions will take considerable effort, considerable ingenuity, and considerable time. However, the reduction of the number of risk factors in our communities is a problem that is important and needs our attention.

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